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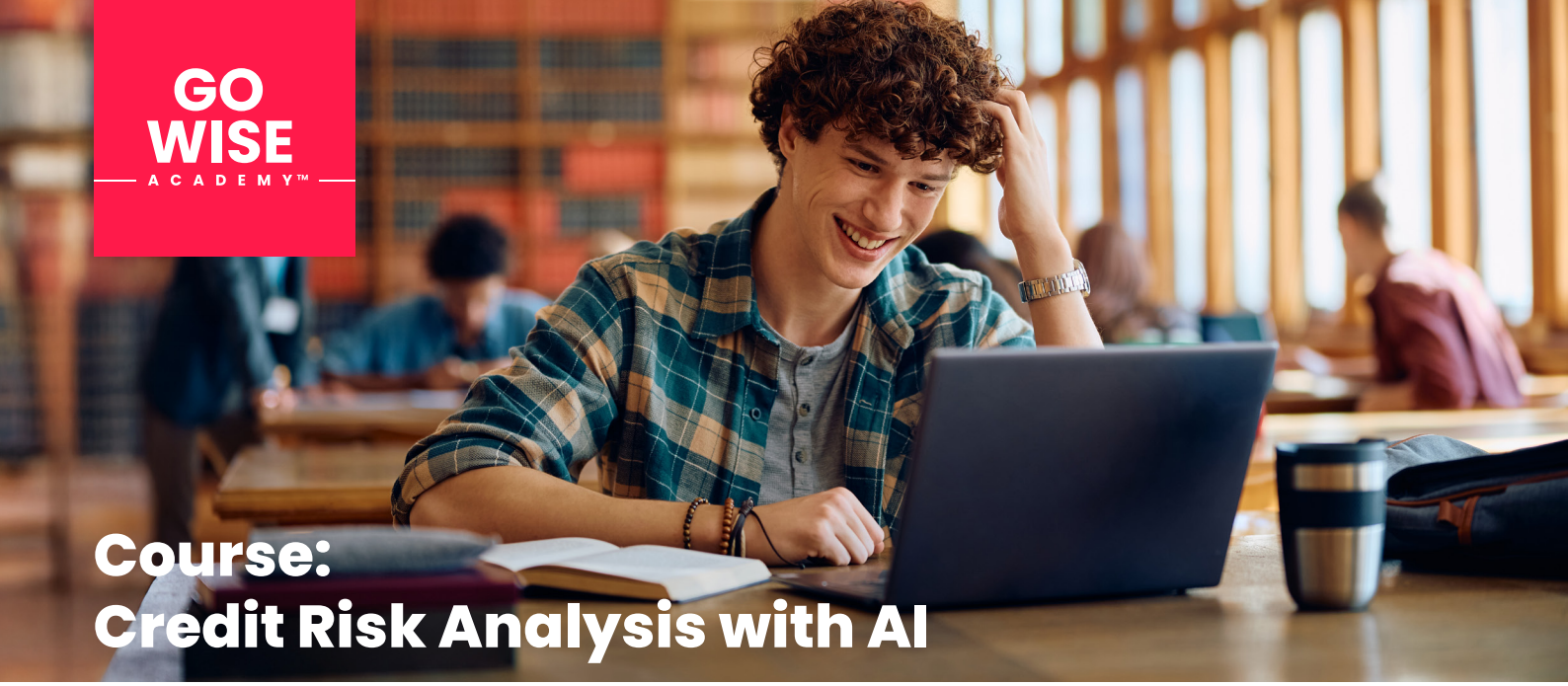

Course: Credit Risk Analysis with AI

DELIVERED BY:

Dmitrijs Ozernovs, FRM

Certified Financial Risk Manager with 20+ years of experience in risk and finance management within the banking industry and fintech innovation.

OBJECTIVES:

- Define key AI and ML concepts and explain their relevance to credit risk assessment for personal and corporate loans.
- Describe the regulatory requirements of the EU AI Act as they apply to high-risk AI systems in credit risk.
- Identify the main ML algorithms and models used for credit scoring, default prediction, and risk pricing.
- Apply practical LLM prompting techniques, including structured outputs and problem segmentation, to credit risk tasks.
- Demonstrate how LLMs can automate credit risk report writing, including borrower descriptions, industry analysis, and financial statement commentary.
- Evaluate the explainability, transparency, and governance requirements for AI models used in credit decisions.
- Design integrated workflows combining ML-based scoring models with LLM-generated narrative reports for end-to-end credit risk analysis.
- Provide practical examples illustrating the application of AI technologies across the credit risk assessment lifecycle.

SKILLS DELIVERED:

- Understanding how ML models are applied to credit scoring and default prediction for personal and corporate loans
- Identifying key components and requirements of the EU AI Act relevant to credit risk AI systems
- Applying LLM prompting techniques and structured output methods to automate credit risk report writing
- Designing integrated AI workflows that combine ML scoring with LLM-generated narratives
- Interpreting model outputs, performance metrics, and explainability requirements for regulatory compliance
- Supporting credit risk decision-making with modern AI-powered tools and methodologies

DESIGNED FOR:

- Credit Risk Analysts and Officers
- Risk Management Professionals
- Data Scientists and ML Engineers working in financial services
- Credit Underwriting and Loan Origination Teams
- Compliance and Regulatory Reporting Professionals
- Senior Management and Decision Makers in lending institutions
- Internal Audit Professionals reviewing AI/ML model governance

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COURSE PROGRAMME:
CREDIT RISK ANALYSIS WITH AI

TOPIC	DURATION
PART 1	
1. Introduction to AI in Credit Risk Analysis	50 min.
• Definitions of Artificial Intelligence (AI) and Machine Learning (ML) in the context of credit risk • Overview of ML approaches to credit scoring (supervised learning, ensemble methods, neural networks) • Introduction to Large Language Models (LLMs) and their capabilities • LLM applications for agentic workflows: automated information gathering, data synthesis, and summary generation • LLM usage in credit risk report writing: borrower descriptions, industry analysis, financial statement narratives, chart and table generation	
2. Regulatory Framework: EU AI Act and Credit Risk	40 min.
• Overview of the EU AI Act and its classification of AI systems by risk level • Credit risk assessment as a high-risk AI application under the EU AI Act • Explainability and transparency requirements for AI models used in credit decisions • Data governance, human oversight, and documentation obligations • Compliance strategies for deploying AI in credit risk within the EU regulatory framework • Interaction with existing financial regulations (CRD, CRR, EBA guidelines on loan origination)	
3. Machine Learning Models for Credit Risk Assessment	60 min.
• Practical overview of ML algorithms: logistic regression, decision trees, random forests, gradient boosting (XGBoost, LightGBM), and neural networks • Binary classification for credit default prediction (PD models for personal and corporate loans) • Feature engineering and variable selection for credit risk models • Model training, validation, and backtesting methodologies • Risk pricing and risk-adjusted return on capital (RAROC) applications • Model performance metrics: AUC-ROC, Gini coefficient, KS statistic, confusion matrix analysis • Practical examples with personal and corporate loan portfolios	
4. Q&A and Discussion	10 min.

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COURSE PROGRAMME:
CREDIT RISK ANALYSIS WITH AI

TOPIC	DURATION
PART 2	
1. Large Language Models: Practical Application in Credit Risk	60 min.

- Practical overview of LLM architecture and capabilities relevant to credit analysts
- Prompting techniques: zero-shot, few-shot, chain-of-thought, and role-based prompting
- Context window limitations and strategies for handling large credit dossiers
- Structured outputs: generating standardised JSON, tables, and formatted reports from LLM responses
- Problem segmentation approach: decomposing complex credit analysis tasks into manageable LLM sub-tasks
- Practical demonstrations: automating borrower descriptions, industry reports, and financial commentary

2. Combining Modern Technologies for Credit Risk Solutions — 60 min.

- Designing end-to-end AI-powered credit risk workflows (from data ingestion to decision support)
- Integrating ML scoring models with LLM-generated narrative reports
- Agentic AI workflows: orchestrating information retrieval, analysis, and report generation
- Use cases: automated credit memos, portfolio monitoring dashboards, and early warning systems
- Challenges and best practices: data quality, model governance, bias mitigation, and audit trails
- Future trends in AI for credit risk management

3. Conclusions and Q&A — 30 min.

- Summary of key learning points
- Frequently asked questions and answers
- Open discussion and clarifications
- Additional resources and next steps

TOTAL	5 hours

PART 1: 11/05/2026
Starts at 8:00 AM UCT
Duration: 2.5 hours + 15 min. break

PART 2: 12/05/2026
Starts at 8:00 AM UCT
Duration: 2.5 hours + 15 min. break

Duration: 5 hours (5 CPD Units)

Language: English

Delivery mode: Live Online

Skills level: Expert

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